

### **Abstract**

A system and method for in-situ verification and calibration of flow control devices includes a first network physical layer connecting the flow control devices to a flow verification device. A controller of the flow verification device is programmed to communicate with each of the flow control devices through the first network physical layer, receive gas specific information and a transfer function from each of the flow control devices, and verify the flow of each flow control device. The controller of the flow verification device is further programmed to communicate with each of the flow control devices through the first network physical layer and, if necessary, calibrate the flow control devices. The verification and calibration of the flow control devices is preferably carried out based upon a single command provided through a tool controller connected to a second network physical layer connected to the flow control devices.